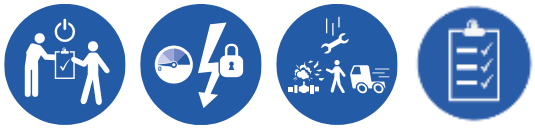
IMCA Safety Flashes summarise key safety matters and incidents, allowing lessons to be more easily learnt for the benefit of all. The effectiveness of the IMCA Safety Flash system depends on members sharing information and so avoiding repeat incidents. Please consider adding **safetyreports@imca-int.com** to your internal distribution list for safety alerts or manually submitting information on incidents you consider may be relevant. All information is anonymised or sanitised, as appropriate.

1 Injuries to the eyes and face

Applicable Life Saving Rule(s)



A member reports a number of incidents where crew have sustained injuries to the face.

Eye and face injuries are always a serious matter. IMCA has relayed these incidents to you as a timely and important reminder to **stop and think** about risks and hazards, about your position – how you are stood or sat - when working, and about how you do certain tasks you may consider routine.

Incident 1 – self-inflicted wound from a screwdriver

What happened

A crew member was using a large screwdriver to pry out a jammed bit from a grub screw. The prying was done upwards; the screwdriver slipped and hit the person in his left cheek. He sustained a 30-40 mm cut, 4-5 mm deep.

What went wrong

The wrong tool was used; the injured person made no ongoing or continuous assessment of the risk involved of the screwdriver slipping.

What are the actions?

Just **stop and think for a minute** before applying force to tools that could slip and fly back into your face. Could you get this task done in a different and more safe way? If not - consider your position – have some "spatial awareness", and wear appropriate PPE.

Incident 2 – LTI: face injury from unplanned release of hydraulic fluid

What happened

On a vessel alongside, the vessel crane driver suffered an injury to his face and left eye while in the process of setting up to remove a 8 cm (3-inch) hydraulic accumulator pressure hose. The injury occurred as a result of an unplanned release of pressurized hydraulic fluid from that hose flange.

The injured crane driver received first aid on board; the leak was stopped. The client was informed, and the injured person was taken to hospital ashore.

What went wrong

Our member discerned the following causes:

- Failure to follow rules and regulations;
- Failure to follow repair/ maintenance instructions;
- Operating equipment or machinery without authority.

Actions

- Ensure there are clear and concise written instructions for planned work;
- Refresher training on Permit to Work awareness and Hazard Identification for all crew.

This incident may be dealt with in more detail in a later Safety Flash.

Incident 3 - Left eye irritation from airborne foreign object

What happened

On a vessel alongside, a crew person felt an irritation in the left eye, while working on the back deck in windy conditions. Appropriate eye protection was worn (prescription safety glasses with side protection). He reported vessel medic and was assessed. A small speck of debris was identified, which could not be safely flushed or removed with the equipment available on board. The crew member was sent to the local emergency room for further assessment and treatment.

What went wrong

- Conditions were very windy; this had already been noted and work stopped under the "Stop Work Authority";
- Although the crew member was wearing compliant safety glasses, a foreign object still got into his eye.

Lessons to learn

- Never take shortcuts and perform a task that you know requires eye protection, without wearing it - at all times, wear the appropriate eye protection for the job in hand;
- Use machine guarding, work screens or other engineering controls as applicable;
- Know the location of first aid equipment and eye wash station;
- Exercise **Stop Work Authority** – raise your voice if you see a potential risk.

Members may wish to refer to:

Incident 1

- Line of fire injury – Man struck in face by hammer
- MSF: Eye Injury Whilst Opening Paint Tin Lid
- Worker sustained severe facial injuries during vessel maintenance

Incident 1 and incident 2

- Lost time injury (LTI): Stored pressure release – Crewman lost an eye
- BBC news: worker loses hand after he was injured with faulty hydraulic cutting gear

Incident 3

- Eye injury: Crewman got something in his eye when removing his PPE
- There's something in my eye!
- Eye injury: Crewman got something in his eye when removing his PPE

WATCH: Protect your eyes – IMCA video

2 Trapped finger during mooring operations

Applicable Life Saving Rule(s)

Line of Fire

What happened

A deckhand injured the fingers on his right hand during mooring operations. The incident occurred when a vessel was headed to the pontoon to moor alongside her regular berth. As the vessels' aft port quarter came alongside the pontoon, the deckhand used the boat hook to pick up the 'in-situ' mooring line and began the process of feeding the spliced eye through the fairlead. He then began placing the line over the bitts, this is where the deckhands' fingers on his right hand became trapped. One finger was seriously injured, and minor injuries to the other two.

What went wrong

- The immediate causes were:
  - There was insufficient slack in the mooring line to allow the task to be completed safely;
  - The vessel was moving forward as the task was performed;
  - Whilst there was a risk assessment in place for the task, including gloves, it did not specifically include impact gloves, nor had an assessment been made on whether they were required;
  - The newest and least experienced deckhand was completing the task and there was only a mooring line with a splice eye available.
- The root cause was seen to be a lack of risk perception.

This incident could have had a high potential for a more serious injury.

Corrective actions and lessons learned:

- The investigation highlighted several corrective actions to be put in place:
  - More thorough Toolbox Talks for mooring arrangements;
  - Review risk assessment for mooring operations;
  - Obtain and try out certain high impact gloves;
  - Review of training and follow up supervision and review of design of vessel mooring arrangements.
- Ensure that sufficient slack is allowed when handling mooring lines;
- Where practicable, vessel should be stopped before mooring lines are placed over bitts, bollards, or cleats;
- Ensure new personnel (persons who are not yet experienced on a particular vessel) are appropriately familiarised;
- The use of single ended lines or the use of small rope extensions on the spliced eyes would avoid exposing fingers and hands to risk.

Members may wish to refer to:

- IMCA video HSSE 038 *Mooring incidents*
- LTI finger injury during mooring operations
- Serious hand injury during mooring operations

3 Near miss – lid on ash trash barrel blown off due to hot ash

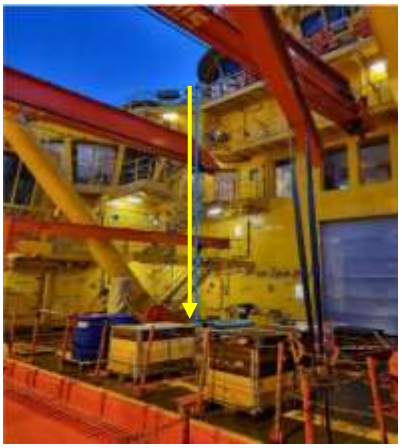
Applicable Life Saving Rule(s)

Line of Fire

What happened?

The lid on a waste container barrel blew off due to a build-up of excessive pressure within the waste container, caused by hot ash being deposited inside. The build-up of pressure was observed by a member of the crew, who attempted to gradually open the compression ring on the waste container to allow for a slow and controlled release of pressure. The worker did not foresee the risk involved in this action; due to the pressure within the waste container the lid was forcefully dislodged from the locking clamp, releasing the lid from the waste container and causing it to fall 11m to the main deck below. No other personnel were present in the area during this incident.

Waste container lid



Distance dropped – 11m

New "goose neck" vents on waste containers (post-event)

What went wrong

- Hot ash from the vessel incinerator was discharged into the waste container (used for offloading) and the waste container lid was closed immediately;
- Because the ashes of the incinerated waste were not yet cool, there was a build-up of hot gases. Pressure built up within the insufficiently ventilated container, causing it to inflate;
- When the crew member went to release the lid from the container, there was a loss of control and the lid was violently flung off;

What were the causes

- There was insufficient assessment in general of the risks of dealing with incinerated waste and of its disposal;
  - The risks of storing hot ash in an airtight container were not foreseen;
  - Lack of knowledge – the risks of manually relieving the build-up of pressure were not understood;

Actions

- Improvement (a goose neck vent for waste containers) quickly identified and implemented;
- Updates in waste management procedure made, including risk assessment for handling and storage of hot ash.

Members may wish to refer to

- Fires and fire risks on vessels
- Stored energy – Worker scalded when hot ash dropped into water (UK HSE)
- Fire in incinerator exhaust gas manifold

4 MAIB: Crew member injured by rotating crank handle - LTI

Applicable Life Saving Rule(s)

Bypassing Safety Controls

Line of Fire

The UK Marine Accident Investigation Branch has published Safety Digest 1/2024, consisting of lessons from recent Marine Accident Reports. IMCA has reviewed the report and will pass on to members some of the incidents which we consider to be of interest. This is one of them.

What happened

A winch drum, with cranking handle still attached, began to spin uncontrollably. The spinning cranking handle violently struck a crew member, fracturing their wrist. The incident occurred when the crew of a pusher tug were disconnecting lines from a cargo barge. The cargo barge ahead of the pusher tug was made fast with connecting lines that were attached to small manually operated coupling winches on the aft deck of the tug and passed forward to secure the barge.

Under the Master's guidance, two crew members were operating the starboard coupling winch to release the lines securing the barge; however, they contravened the vessel's standard operating procedure by not removing a cranking handle connected to the winch drum. When the winch brake was released the tension in the line connected to the cargo barge caused the winch drum, and still attached cranking handle, to spin. Someone was stood in the way; the spinning cranking handle hit that person and injured them, causing a fractured wrist. They were taken ashore to hospital for treatment. The crew member was unable to return to work for several months due to the severity of the injury.

Coupling winch and removable cranking handle

Injured person with fractured wrist

What went wrong

- The tug's design limited visibility of the aft deck from the wheelhouse – no line of sight - and the Master and crew used handheld radios to communicate;
- The crew failed to follow the vessel's standard operating procedure by not removing the cranking handle.

Lessons

- Take a moment to undertake a dynamic risk assessment rather than rush to complete the task – **stop and think;**
- The Master could not safely undertake the simultaneous tasks of steering the pusher tug and trying to control the aft deck operations from a position of limited visibility – installing CCTV could help;
- "Task seen as routine" – it can be easy to overlook health and safety responsibilities while undertaking or routine duties. How can we make it easier to work safely, rather than easy to work unsafely?
- Toolbox talks can provide an opportunity to remind those involved of the correct process for the task, why it is important, and how to complete it safely.

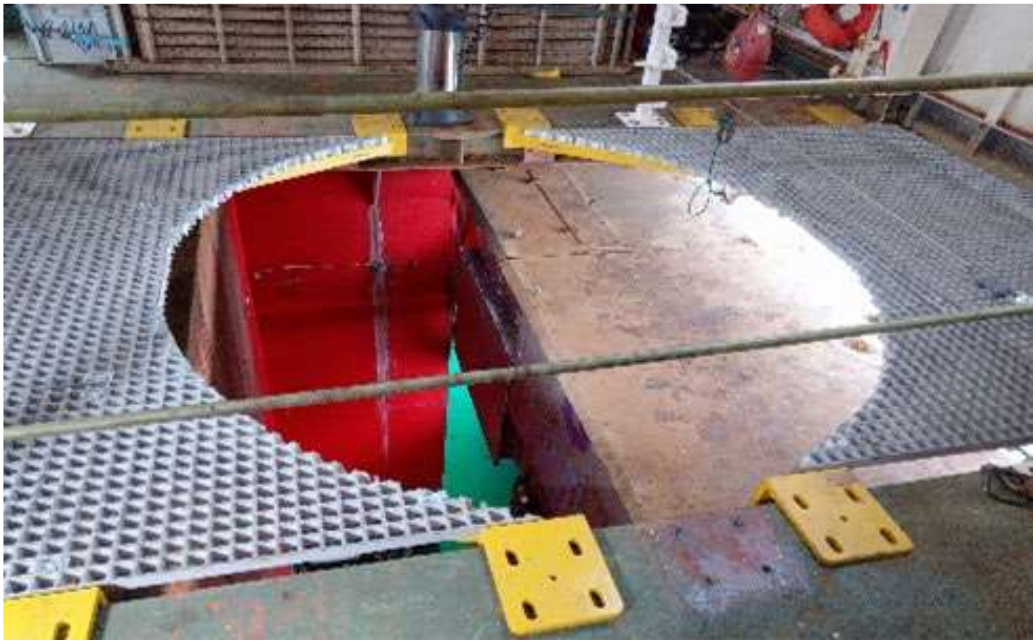
Members may wish to refer to:

- Near Miss: Personnel nearly struck by rotating chain attached to flexible pipe
- Unplanned rotation of drilling machinery

5 Near miss: dislodged grating with potential fall to sea

What happened?

A section of Glass Reinforced Plastic (GRP) grating on a vessel dislodged and dropped to sea. The incident occurred when a welder was on the grating passing a welding hose connection to a level further up, during preparations for work activities. The welder arrested their fall on a support beam and recovered without assistance to a safe position. The failed grating section fell 5.5m to sea and was lost. The welder, who did not suffer any injuries, reported the near miss. Operations nearby were suspended to allow follow up investigation and for the worksite team to complete a full review and "Time Out for Safety".



What went wrong?

- The securing clips provided, which should have held the gratings in place, were not spaced correctly nor fixed securely to the framework;
- Two of the securing clips were missed from the original installation design;
- No-one spotted that the grating section was installed with an overhang on one end. As the welder stepped on this area, the forces allowed for the grating to tip and fall to the sea.

What went right?

- The individual managed to catch himself and recovered to safety;
- The incident was reported, and the investigation conducted quickly, corrective actions taken immediately.

What can we learn

The grating fastenings or fixings were not identified or included within the vessel planned maintenance system. There was no routine inspection or visual check of the dimensional fit or condition of the securing clips. Consequently, over the installation period the grating became insecure, without the change being detected.

Actions taken

Our member took the following actions:

- Changes to planned maintenance system for grating and fixings, and amendment of safety checklists for area;
- Added grating to future DROPS surveys, particularly on areas where work on split levels occurs, where the risk of serious personal injury may occur from falls and where potential for significant dropped objects exists;
- Future grating design should follow good practice guidance for load capacity, fastenings and the avoidance of overhangs that may create a cantilever effect;
- Changes to grating should be pre-approved by vessel Captain or Chief Engineer, temporary or permanent modifications should not be performed without approvals.

Members may wish to refer to:

- Unprotected openings in floor grating – work stopped
- Unsafe flooring led to man overboard fatality
- BSEE: Crewman fell to his death through faulty grating
- Near miss – grating dislodged and fell, leading to crewman slipping